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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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GARLICK HARRISON & MARKISON P.O. BOX 160727 AUSTIN, TX 78716-0727			EXAMINER NGO, NGUYEN HOANG	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 01/09/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/664,824

Applicant(s)

PALM, STEPHEN

Examiner

Nguyen Ngo

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,8,11,13,18,20,21 and 23 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,7,9,12,14-17,19,22,24-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

This communication is in response to the amendment of 8/15/2007. Accordingly, Claims 1-27 are currently pending in the application.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, 8, 11, 13, 18, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long (US 2003/0189952), in view of Helms (US 6678316), hereinafter referred to as Long and Helms.

**Regarding claims 1, 8, 13 and 23**, Long discloses a method for Digital Subscriber Line (DSL) handshaking, the method comprises:

Transmitting, by a remote DSL transceiver [0078], first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ ([0079] Note: synchronize G.hs handshaking);

Detecting, by a central office DSL transceiver ([0081] Note: HSTU-R), the R-ETONES-REQ to produce detected R-ETONES-REQ [0081];

Determining, by the central office DSL transceiver, alignment of a hyper frame in accordance with a Time Compression Multiplexing-Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR) [0074];

Transmitting, by the central office DSL transceiver, first response signals containing odd numbered carriers in accordance with the alignment of the hyper frame to produce C-TONES-TTR [0081];

Acquiring, by the remote DSL transceiver, TTR synchronization in accordance with the C-TONES-TTR; upon acquiring TTR synchronization, transmitting, by the remote DSL transceiver, second signals containing even numbered carriers to produce R-TONE-TTR [0082];

In response to the R-TONE-ITR, transmitting, by the central office DSL transceiver, second response signals containing odd numbered carriers to produce C-GALF1-TTR [0083];

In response to the C-GALF1-TTR, transmitting, by the remote DSL transceiver, third signals containing even numbered carriers to produce R-FLAG1-TTR [0083]; and in response to the R-FLAG1-TTR, transmitting, by the central office DSL

transceiver, third response signals containing odd numbered carriers to produce C-FLAG1 [0083].

Long shows initializing and response to handshaking in NEXT and FEXT, but do not shows transmitting initializing and response to handshaking in odd and even carriers. Helm however discloses that all odd multiplied carriers be used in the downstream path from the central office and even multiplied carriers be used in the upstream path (or vise versa) and that this even-odd distribution of upstream and downstream frequencies offer advantages (col5 lines 51-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the handshaking method of Long with the transmission on odd and even carrier of Helms in order to eliminate near end crosstalk. It should further be noted that the use of even numbered carriers for upstream and odd number carriers for downstream is simply a network parameter.

**Regarding claim 3, 10 and 20**, Long discloses further comprises: subsequent to transmitting the first signals, transmitting, by the remote DSL transceiver, additional first signals from one signaling families to produce R-TONES-REQ [0081].

**Regarding claims 5, 11 and 21**, Long discloses wherein the acquiring, by the remote DSL transceiver, TTR synchronization further comprises: continue transmitting, by the remote DSL transceiver, the R-ETONES-REQ until the TTR synchronization is acquired [0089].

**Regarding claim 18**, Long discloses remote Digital Subscriber Line (DSL) transceiver capable of initiating a DSL handshake, the remote DSL transceiver comprises:

processing module [0027];

and memory operable coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to ([0027] Note: the processor module can be programmed to provide a signal to the receiver, which implies the processor module have the equivalence of a memory to store the program):

transmit first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ ([0079] Note: synchronize G.hs handshaking);

receive first response signals containing odd numbered carriers in accordance with the alignment of a hyper frame to produce C-TONES-I-FR [0081];

acquire TTR synchronization in accordance with the C-TONES-TTR [0082];

upon acquiring TTR synchronization, transmit second signals containing even numbered carriers to produce R-TONE-TTR [0082];

receive second response signals containing odd numbered carriers to produce C-GALF1-TTR [0083]; and

in response to the C-GALF1-TTR, transmit third signals containing even numbered carriers to produce R-FLAG1-TTR [0083].

Long shows initializing and response to handshaking in NEXT and FEXT, but do not shows transmitting initializing and response to handshaking in odd and even carriers. Helm however discloses that all odd multiplied carriers be used in the downstream path from the central office and even multiplied carriers be used in the upstream path (or vise versa) and that this even-odd distribution of upstream and downstream frequencies offer advantages (col5 lines 51-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the handshaking method of Long with the transmission on odd and even carrier of Helms in order to eliminate near end crosstalk. It should further be noted that the use of even numbered carriers for upstream and odd number carriers for downstream is simply a network parameter.

**Regarding claim 23,** Long discloses a central office Digital Subscriber Line (DSL)

transceiver capable of initiating a DSL handshake, the central office DSL transceiver comprises:

processing module [0027];

and memory operable coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to ([0027] Note: the processor module can be programmed to provide a signal to the receiver, which implies the processor module have the equivalence of a memory to store the program):

Receive first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ ([0079] Note: synchronize G.hs handshaking);

Detecting the R-ETONES-REQ to produce detected R-ETONES-REQ [0081];

Determining, by the central office DSL transceiver, alignment of a hyper frame in accordance with a Time Compression Multiplexing-Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR) [0074];



Transmit first response signals containing odd numbered carriers in accordance with the alignment of the hyper frame to produce C-TONES-I-FR [0081];

Receive second signals containing eve numbered carriers to produce R-TONE-TTR [0082];

In response to the R-TONE-TTR, transmit second response signals containing odd numbered carriers to produce C-GALF1-TTR [0083];

Receive third signals containing eve numbered carriers to produce R-FLAG1-TTR 0083];

and in response to the R-FLAG1-TFR, transmit third response signals containing odd numbered carriers to produce C-FLAG1 [0083].

Long shows initializing and response to handshaking in NEXT and FEXT, but do not shows transmitting initializing and response to handshaking in odd and even carriers.

Helm however discloses that all odd multiplied carriers be used in the downstream path from the central office and even multiplied carriers be used in the upstream path (or vise versa) and that this even-odd distribution of upstream and downstream frequencies offer advantages (col5 lines 51-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the handshaking method of Long with the

transmission on odd and even carrier of Helms in order to eliminate near end crosstalk. It should further be noted that the use of even numbered carriers for upstream and odd number carriers for downstream is simply a network parameter.

***Allowable Subject Matter***

3. Claims 2, 4, 6, 7, 9, 12, 14, 15, 16, 17, 19, 22, 24- 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments filed 8/15/2007 have been fully considered but they are not persuasive.

5. Applicant submits that Helms fails to disclose transmitting from the central office in odd carrier and transmitting from the remote node in even carriers. However col5 lines 50-66 clearly shows this feature as Helm discloses all odd multiplied carriers may be used in the downstream path from the central office and even multiplied carriers be used in the upstream path (or vice versa). It should further be noted that the carriers used for upstream and downstream paths from the central office are simply definable network parameters.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. a) Noma et al. (US 7305001), ADSL Modem Apparatus And ADSL Modem Communication Method

8. b) Okamura (US 20040105454), Data Transmissions Device And Data Transmissions Method Capable Of Minimizing Delay Of Fast Data.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571)272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NN

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